

Microbead Platform Assay Process

STEP 4
Data management
& bioinformatics

STEP 3
Code and
Fluorescence
Read-out in Solution

STEP 2
Beads self-assemble
in groove plate

STEP 1
Beads
Hybridized
in Solution

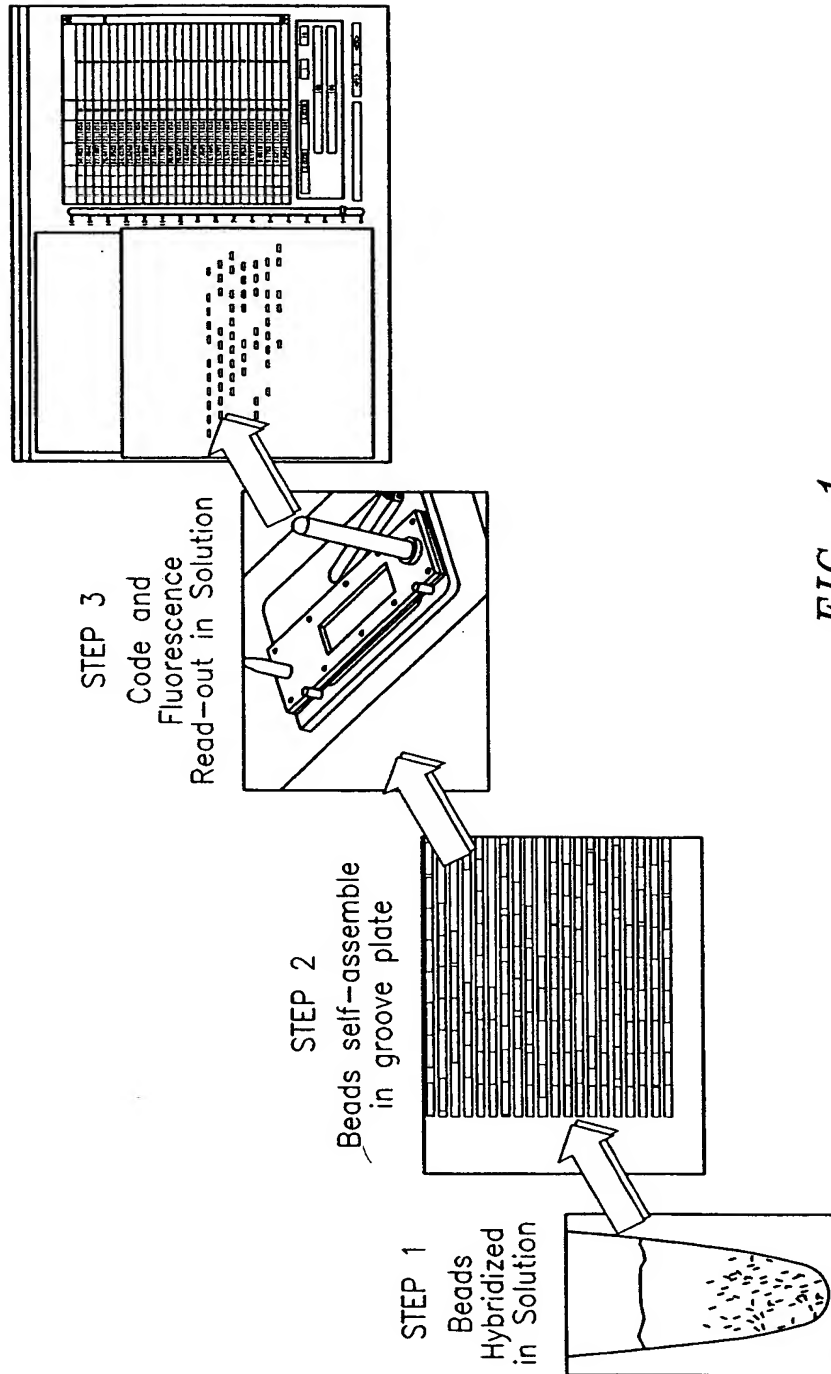


FIG. 1

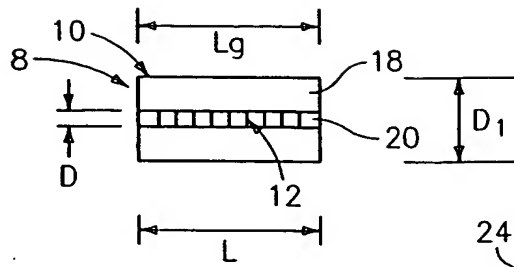


FIG. 2

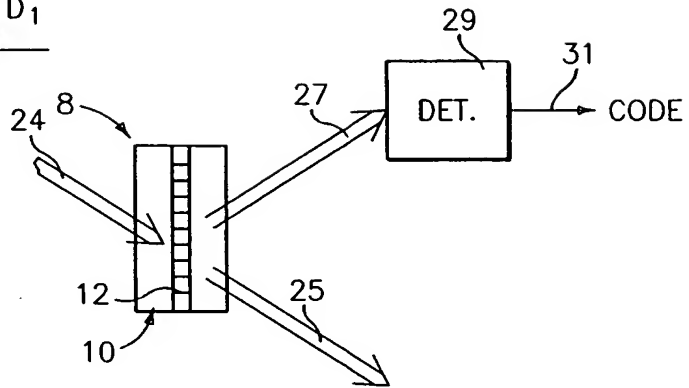


FIG. 3

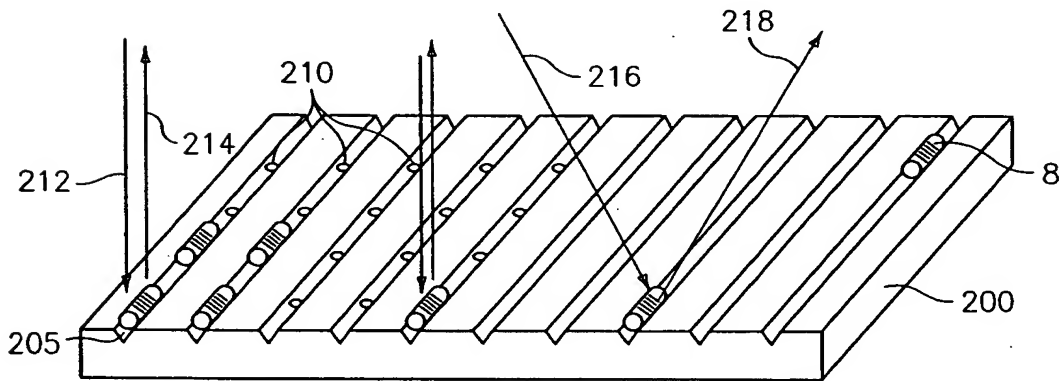


FIG. 4

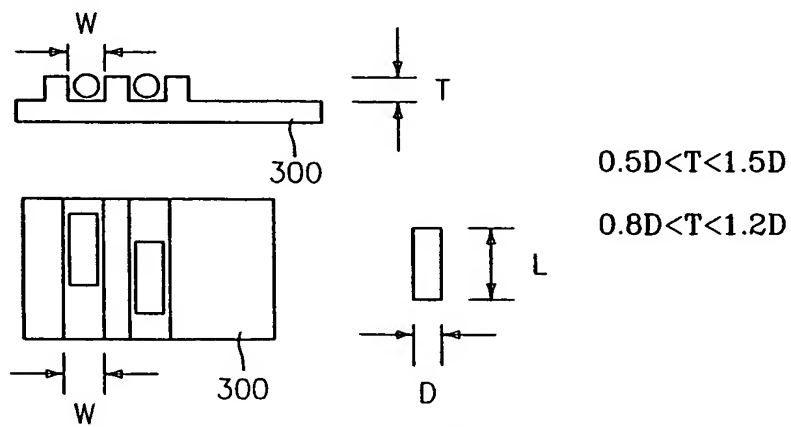


FIG. 5

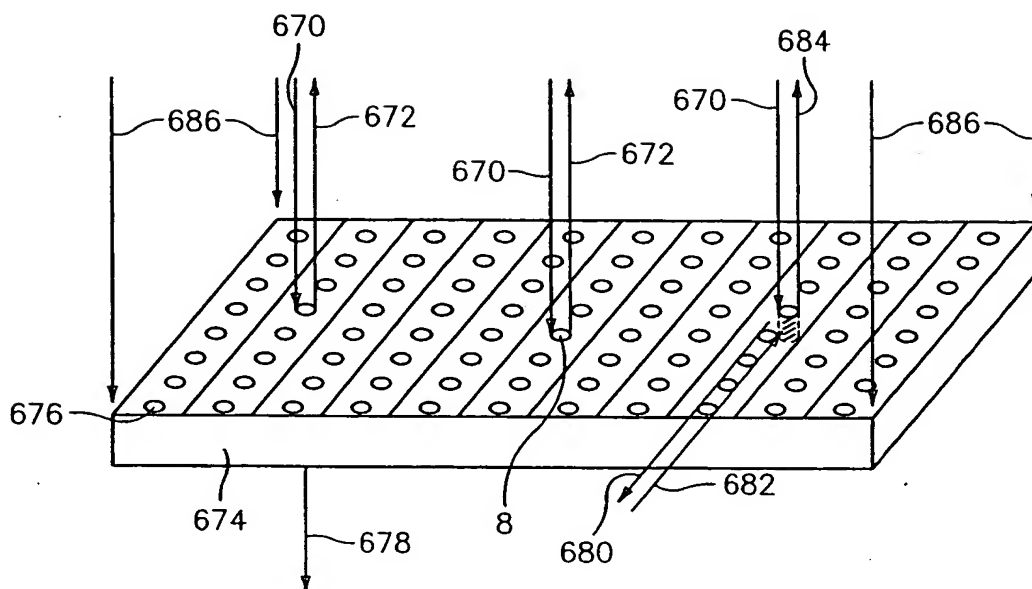


FIG. 6

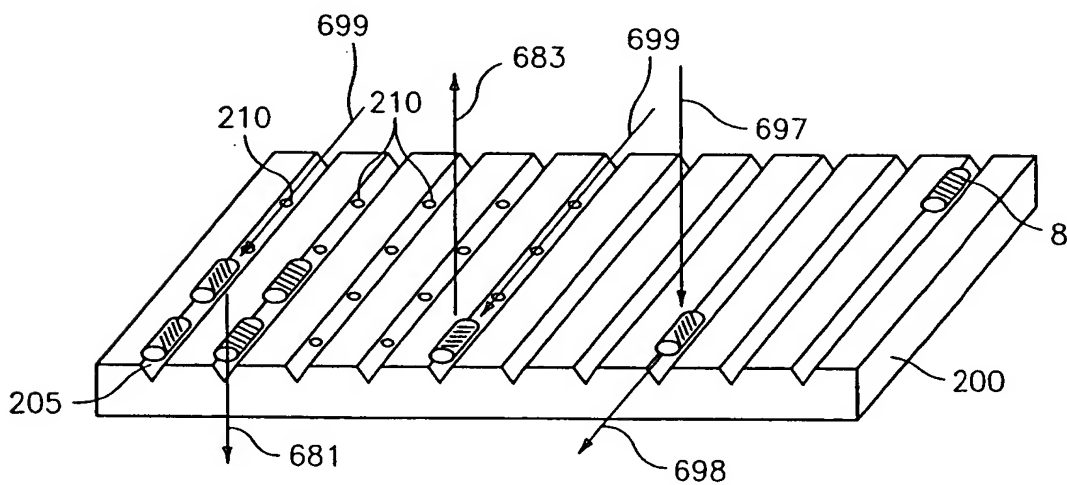
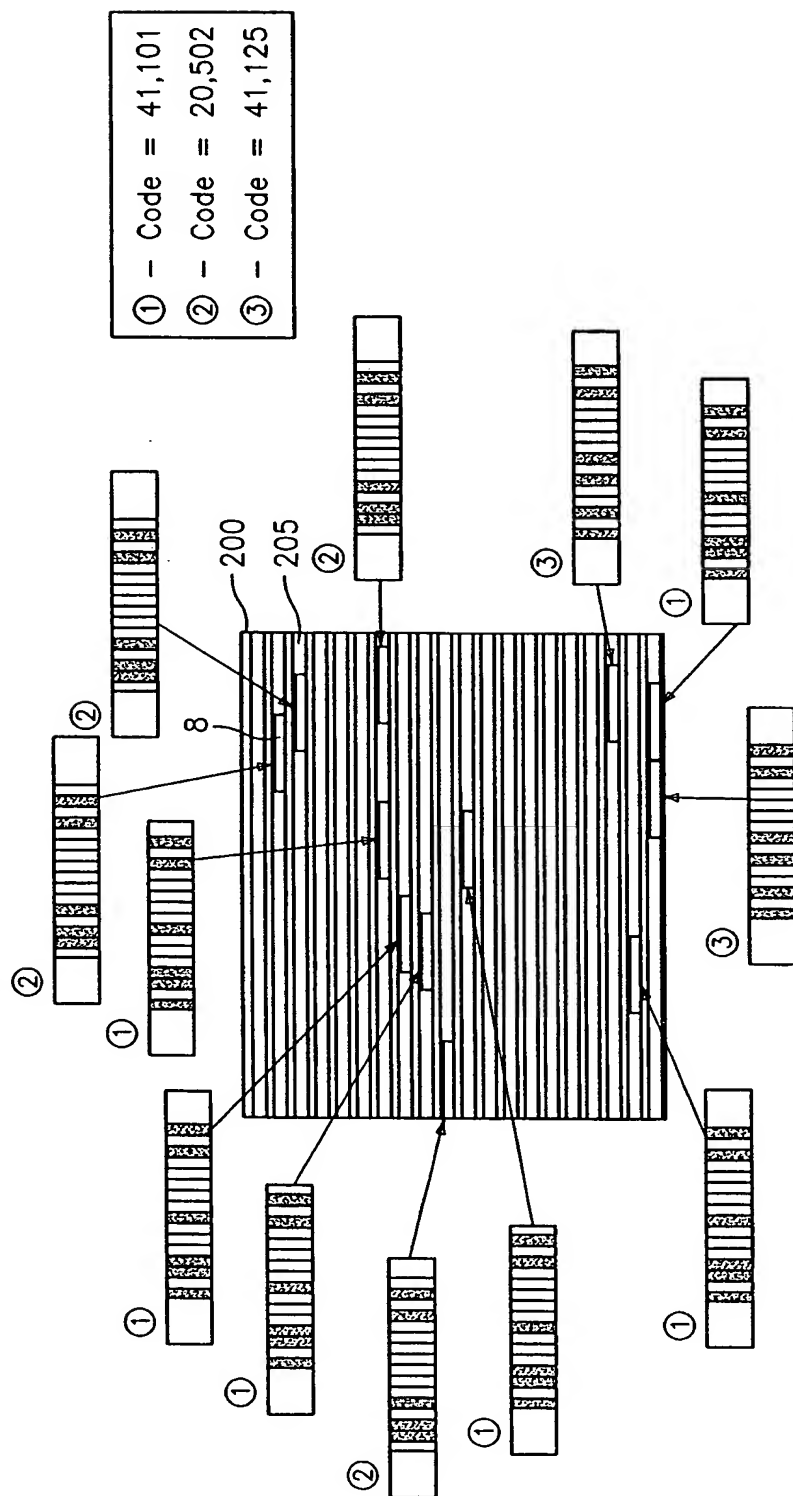


FIG. 7

7

Microbead Mapper Readings



- Three different codes in this set (16 bit, binary symbology)
- Each code can have a different oligo attached

FIG. 8

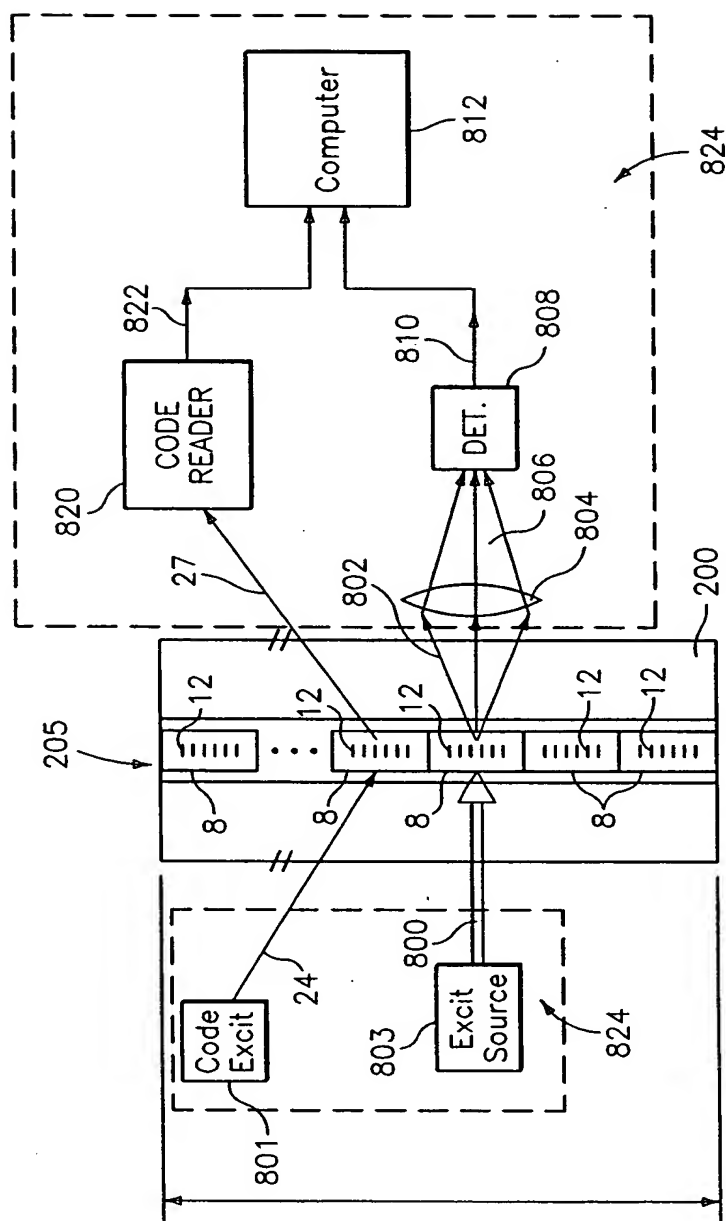


FIG. 8a

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Open Plate Format

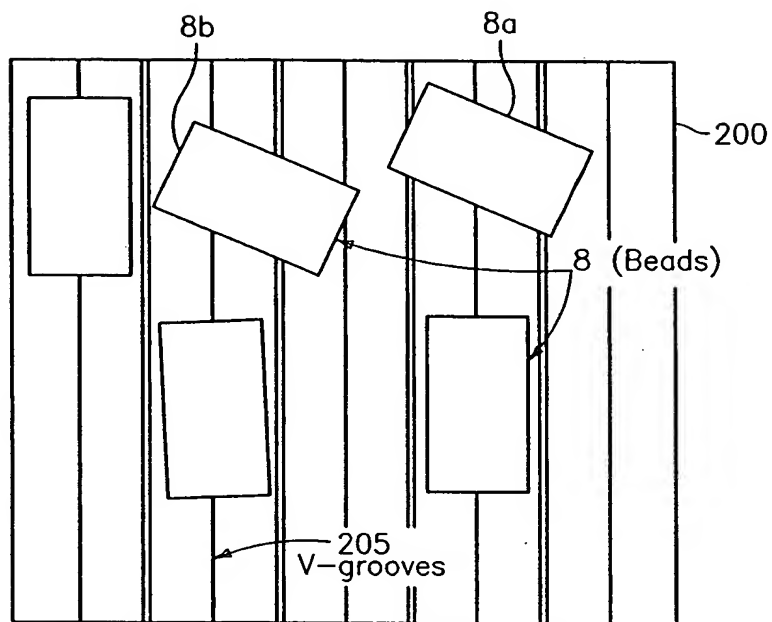


FIG. 9

Two zone cuvette

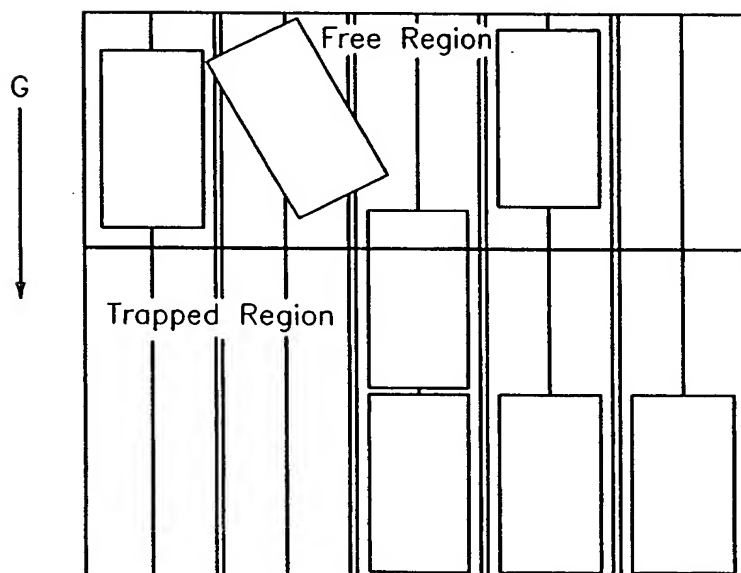


FIG. 17

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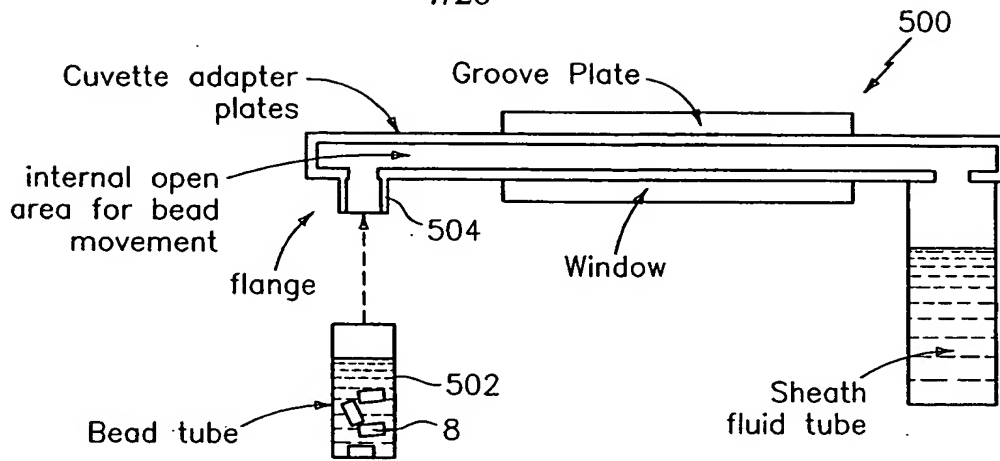


FIG. 10

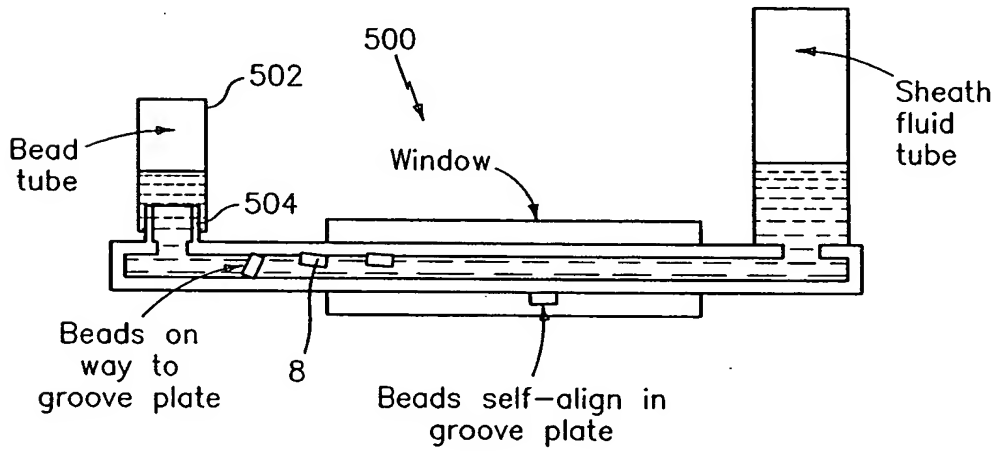


FIG. 11

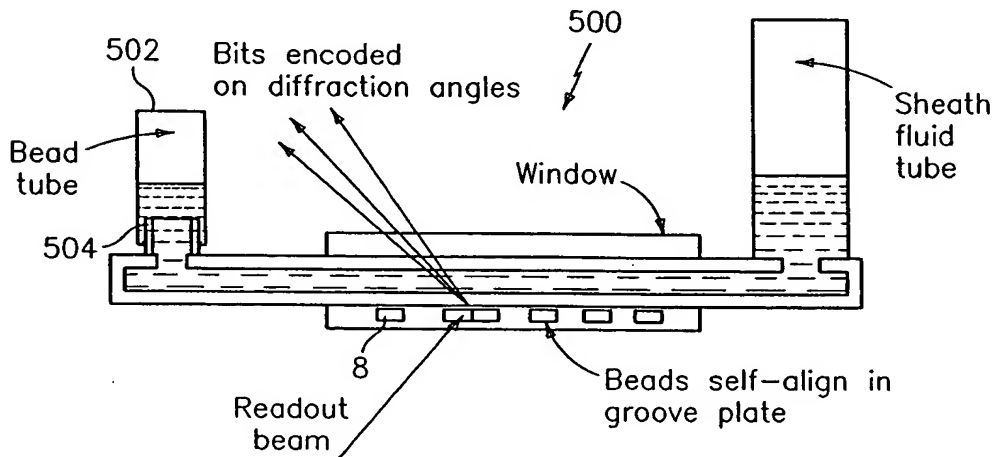


FIG. 12

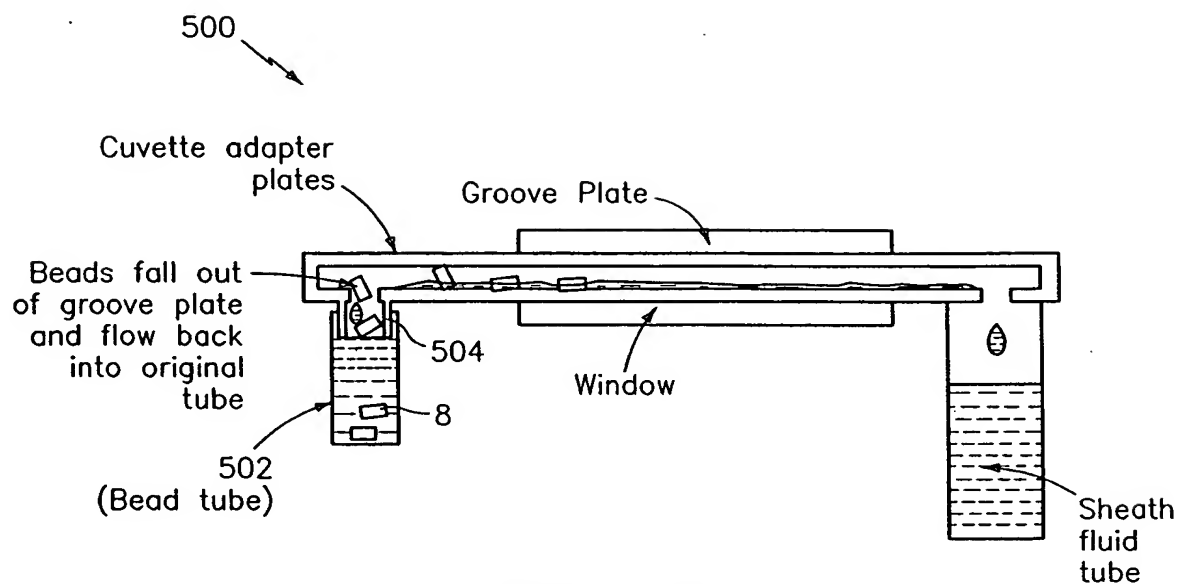


FIG. 13

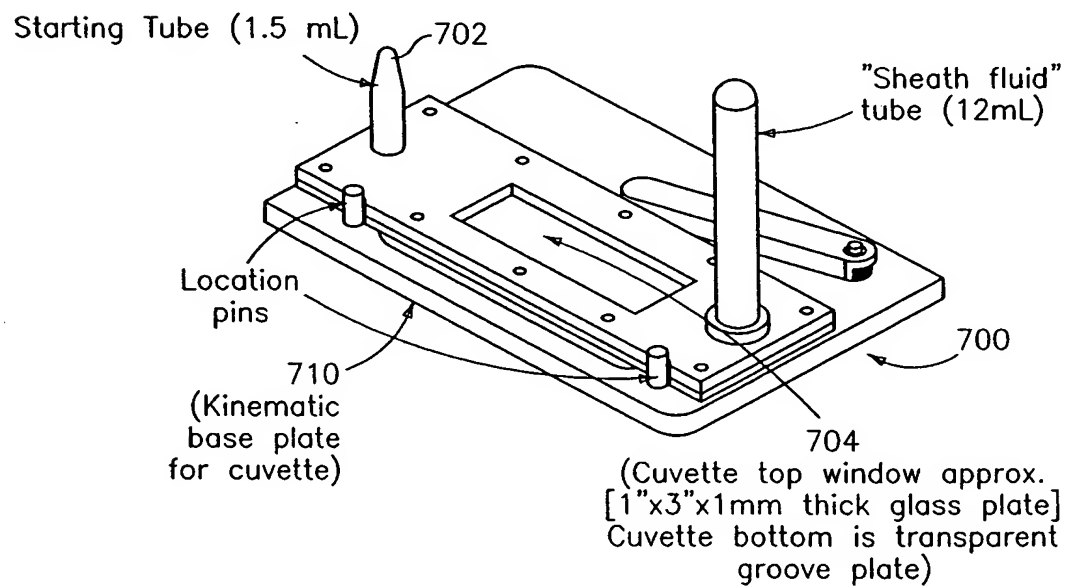


FIG. 14

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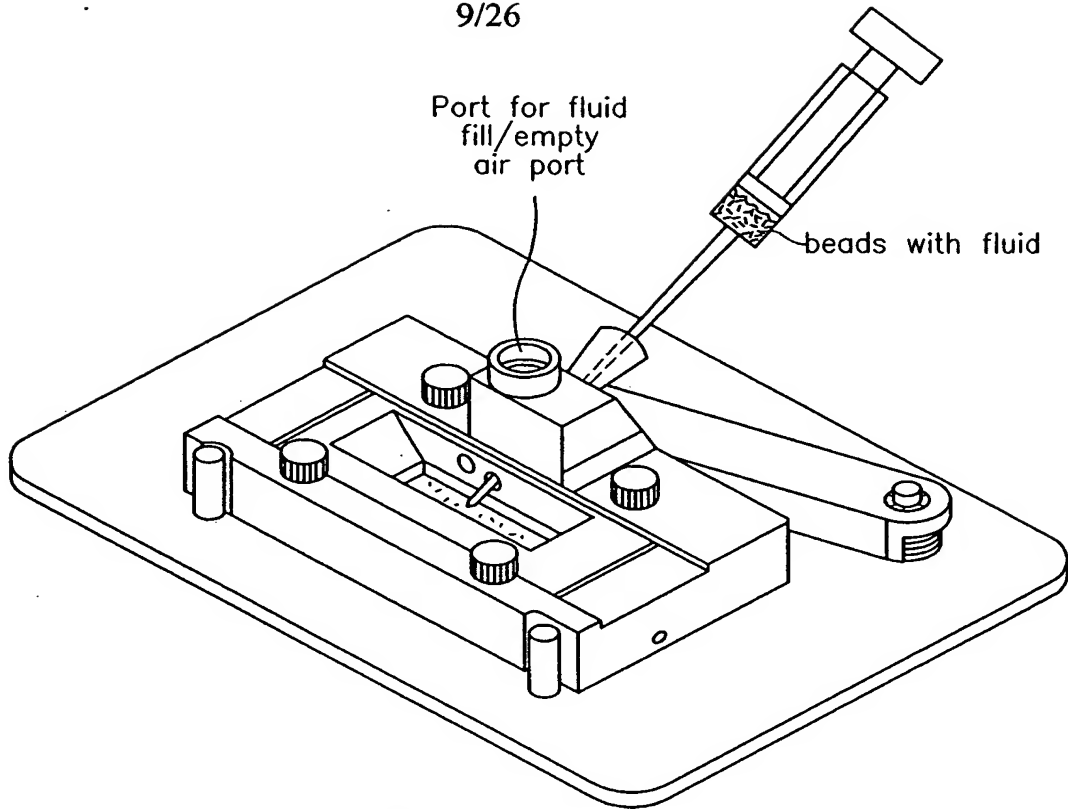


FIG. 15

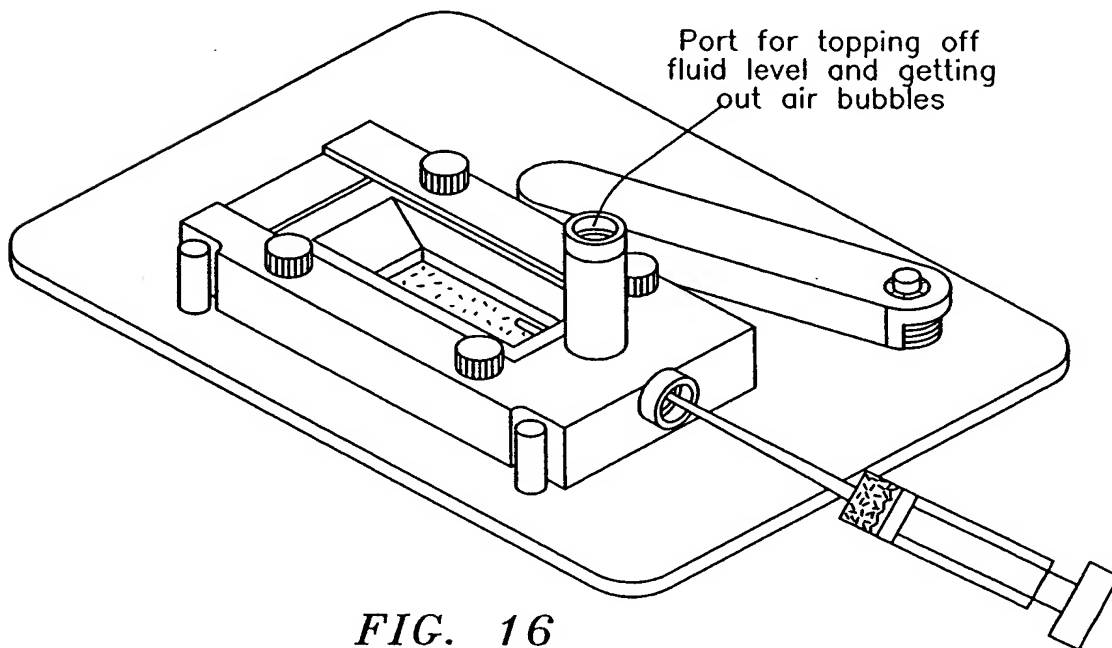


FIG. 16

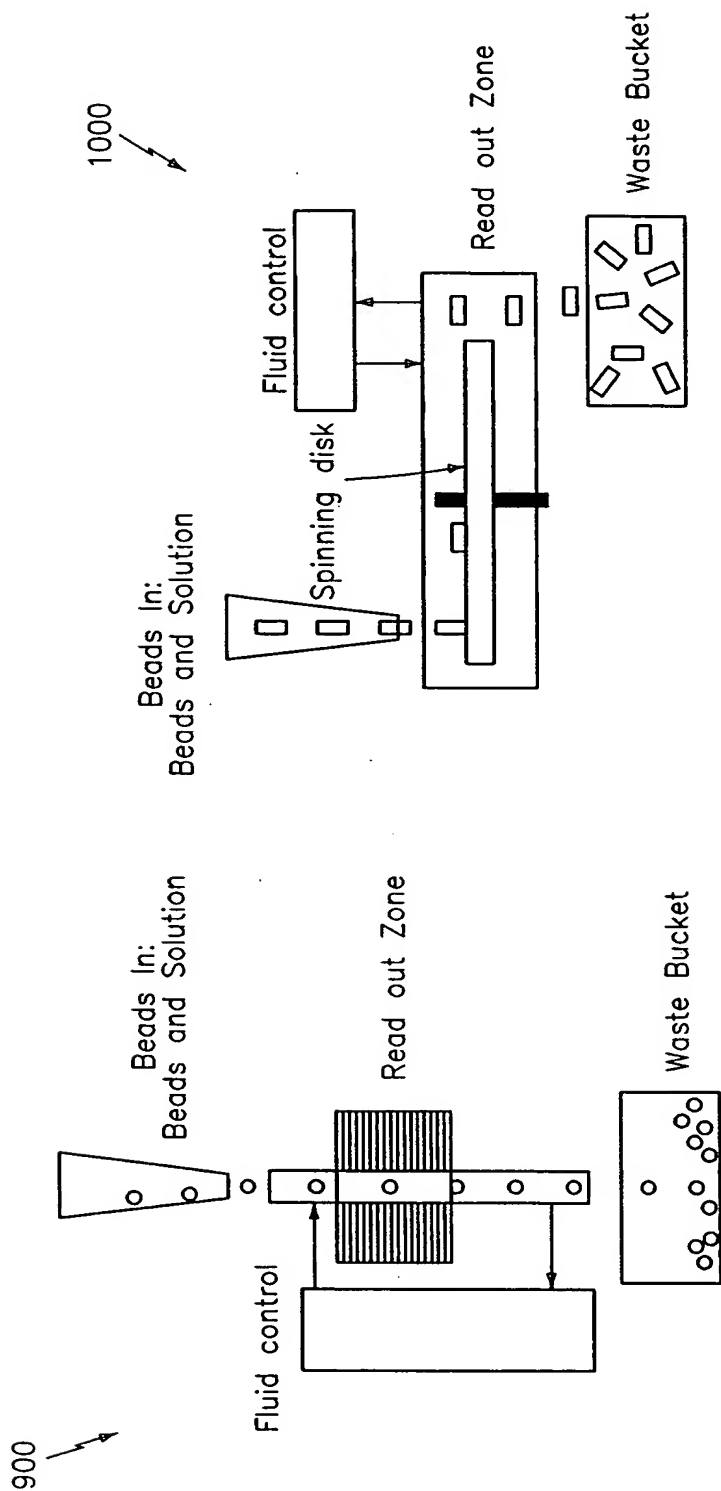


FIG. 18(a)

FIG. 18(b)

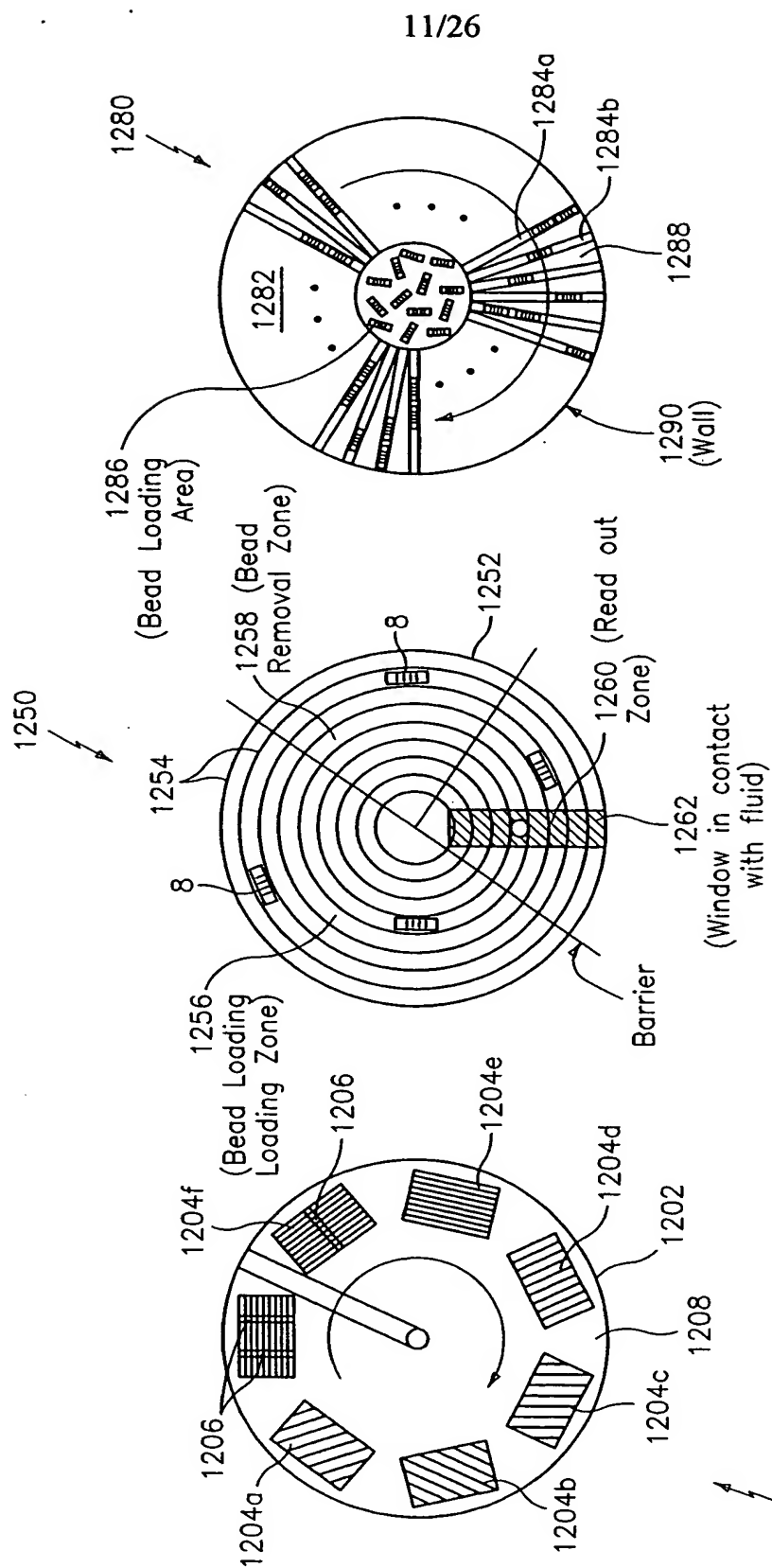


FIG. 19(b)

FIG. 19(a)

FIG. 19(c)

"Cytometer-like" bead reader

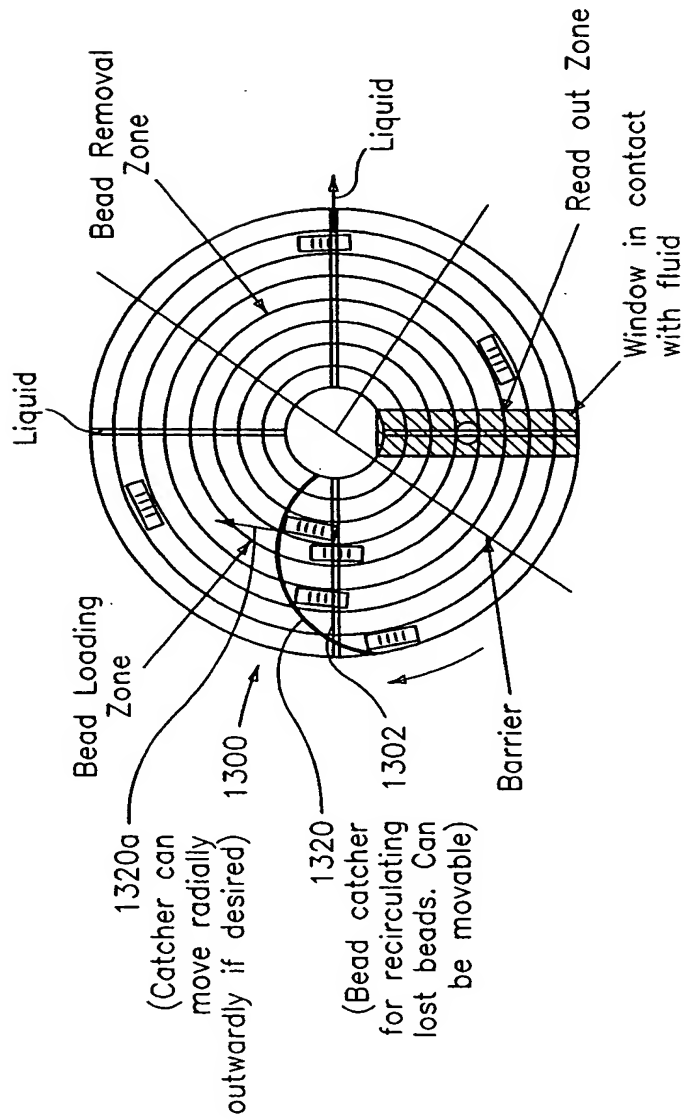


FIG. 20(a)

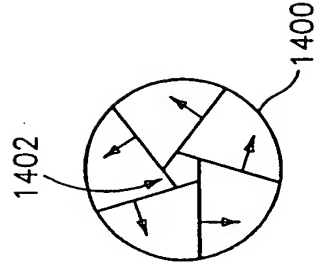


FIG. 20(b)

450 x 65 um beads on SU8 groove plate

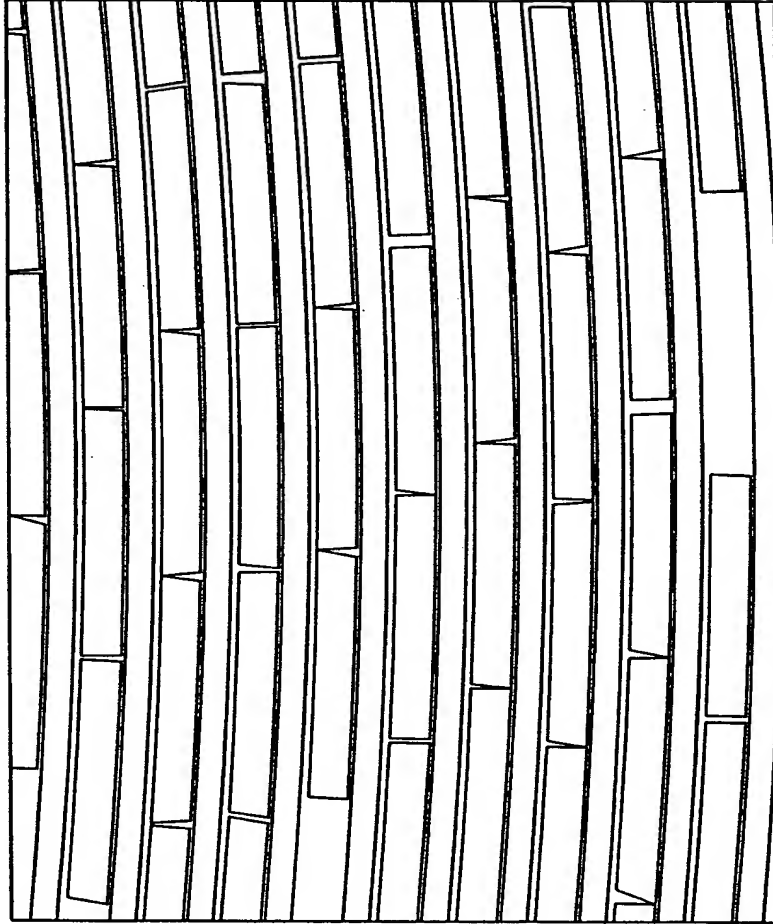


FIG. 21

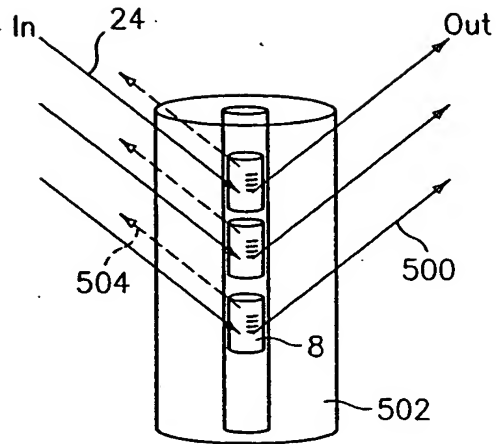


FIG. 22

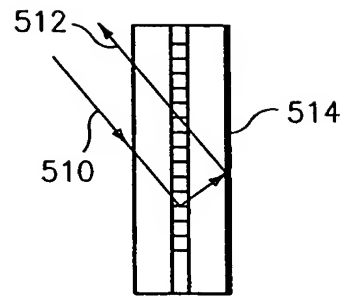


FIG. 49

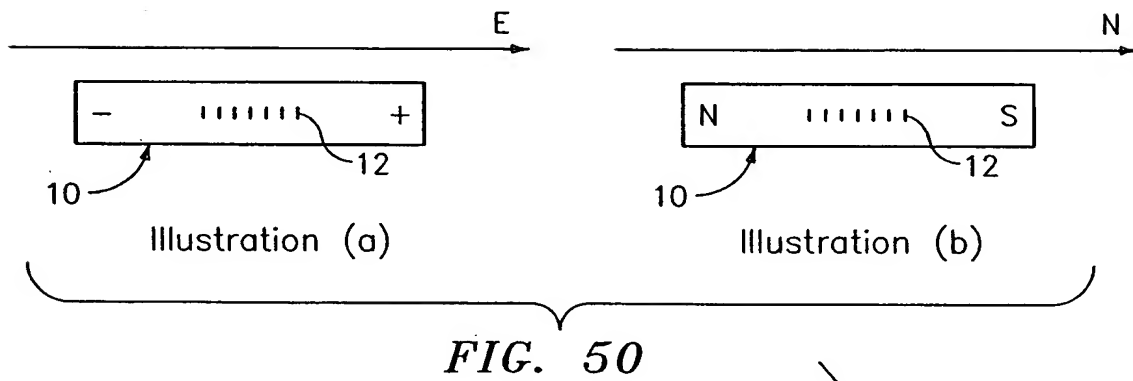


FIG. 51

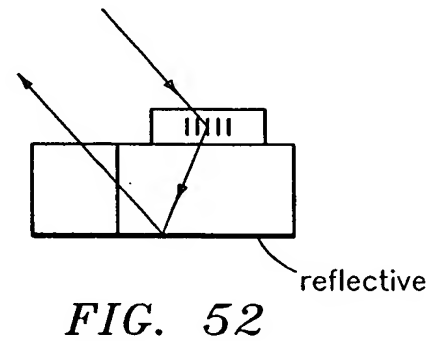
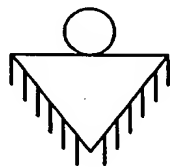


FIG. 52

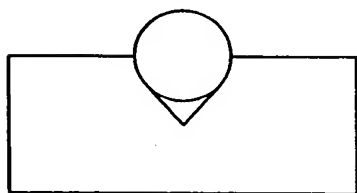


FIG. 53

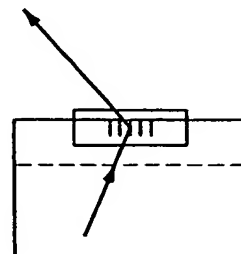


FIG. 54

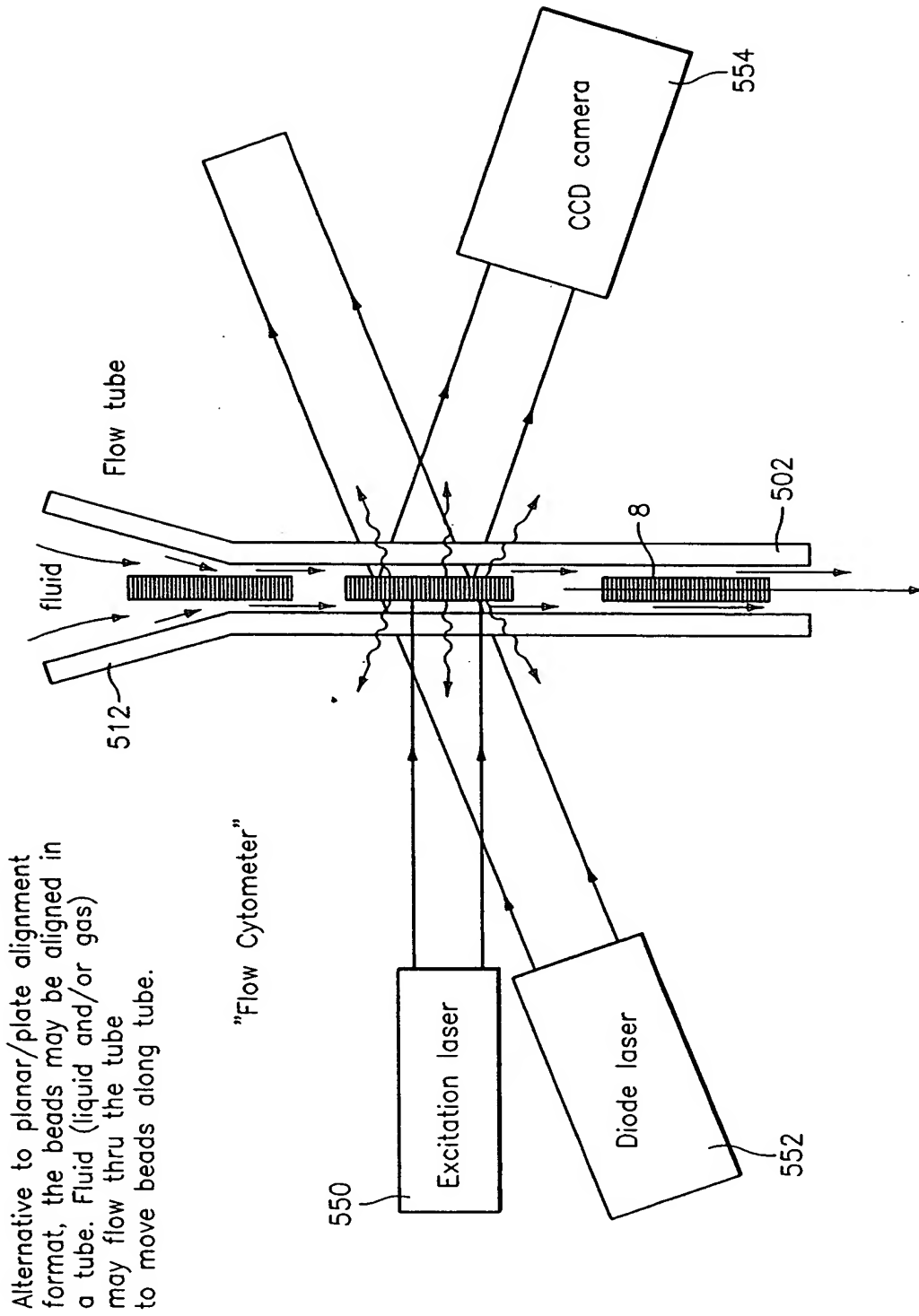


FIG. 23

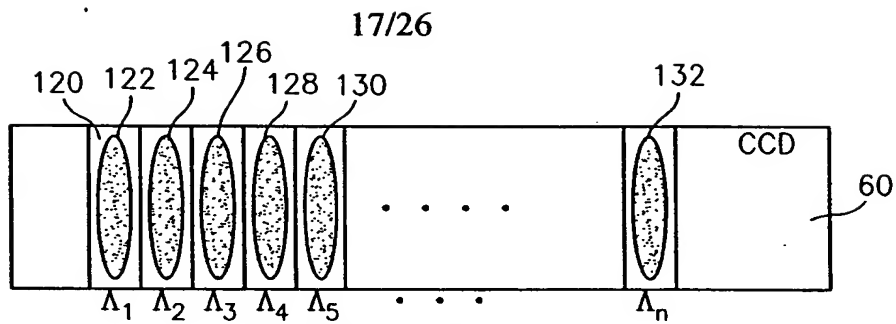


FIG. 25(a)

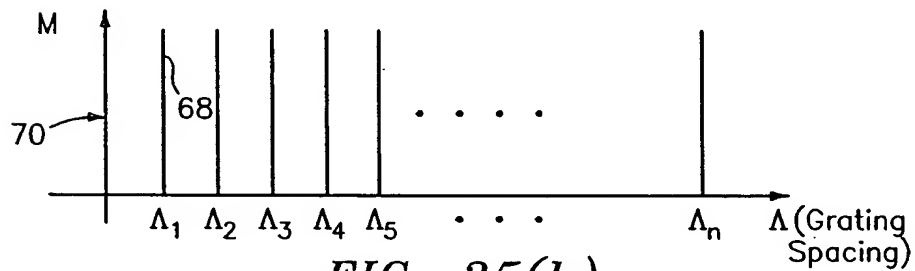


FIG. 25(b)

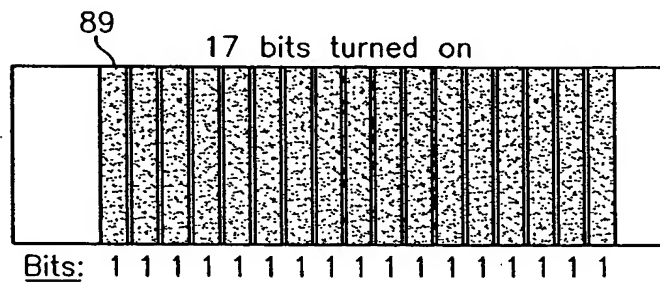


Illustration (a)

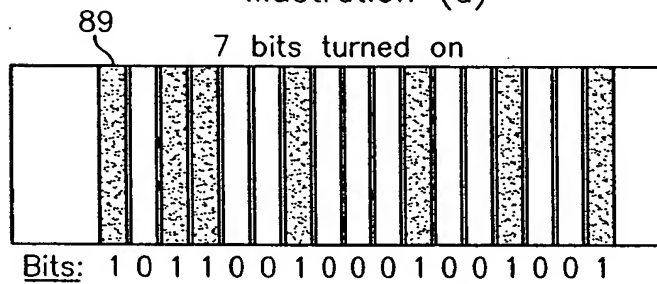


Illustration (b)

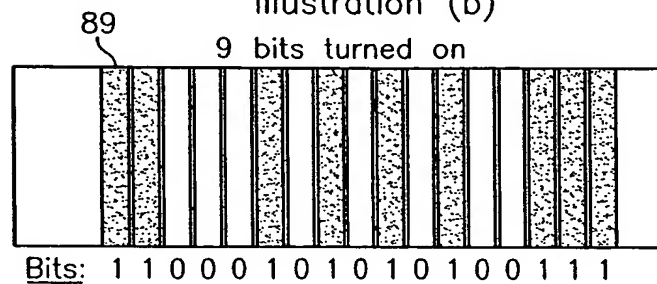


Illustration (c)

FIG. 26

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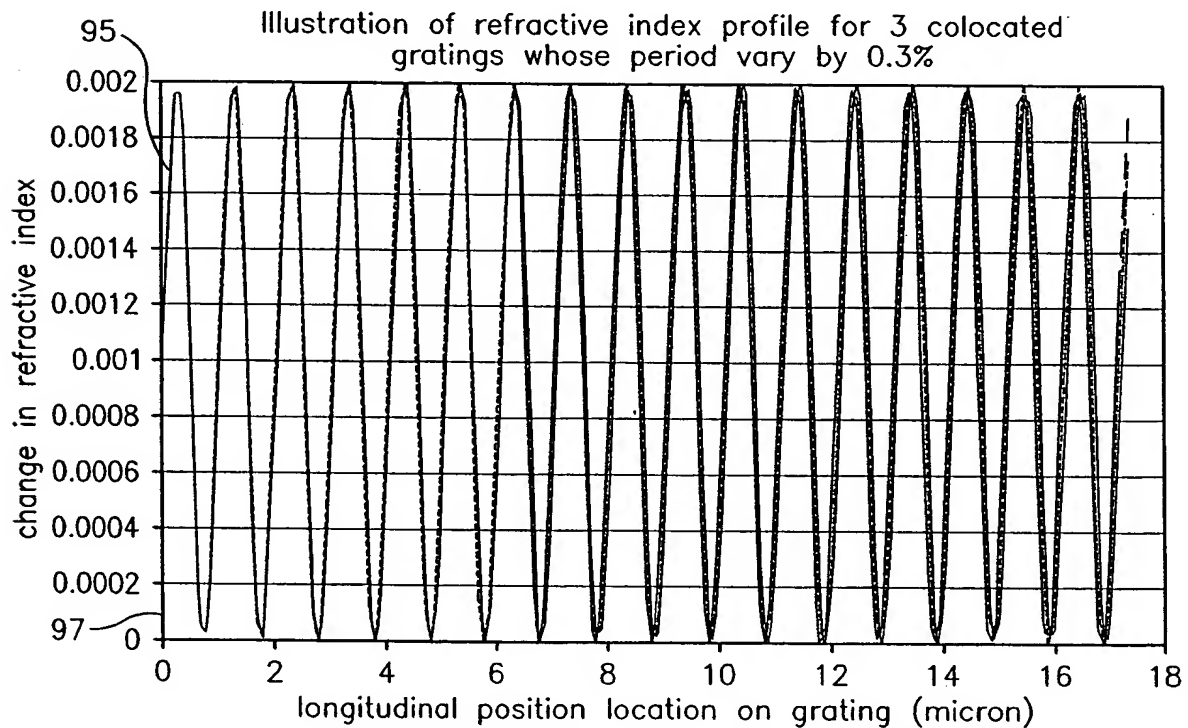
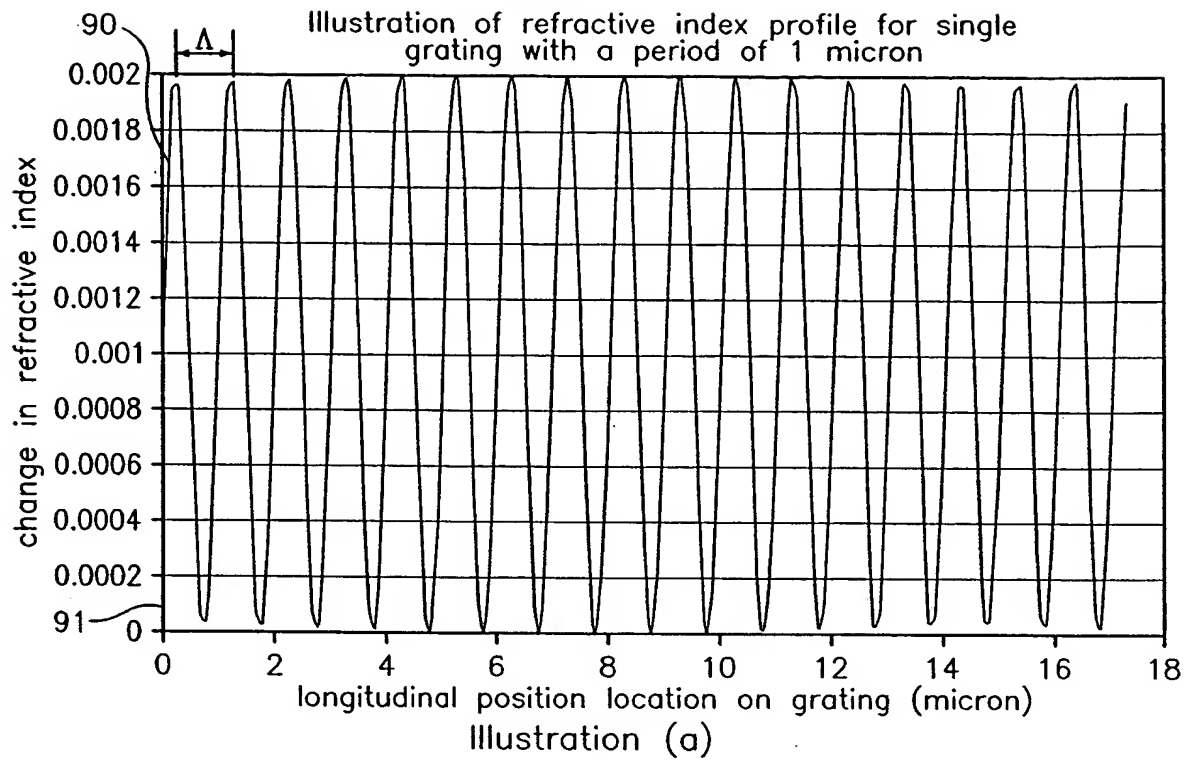


FIG. 27

--- grating 1 grating 2 — grating 3

Illustration (c)

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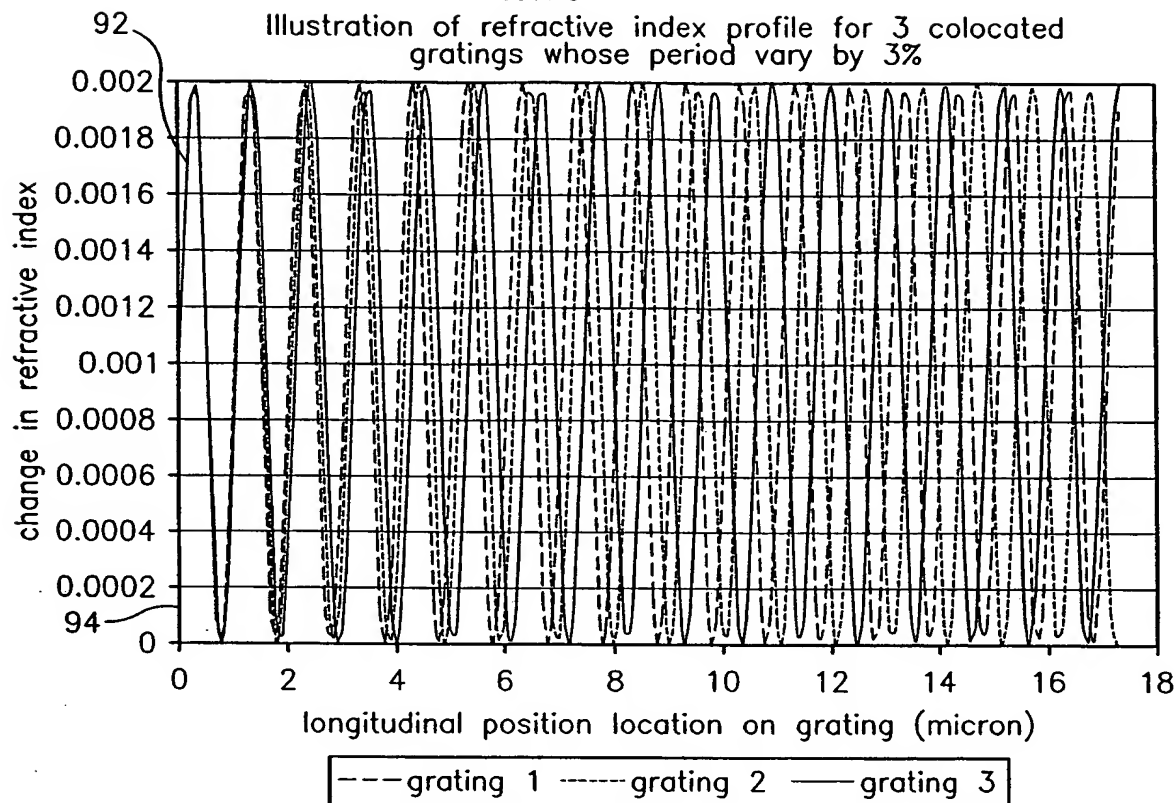


Illustration (b)

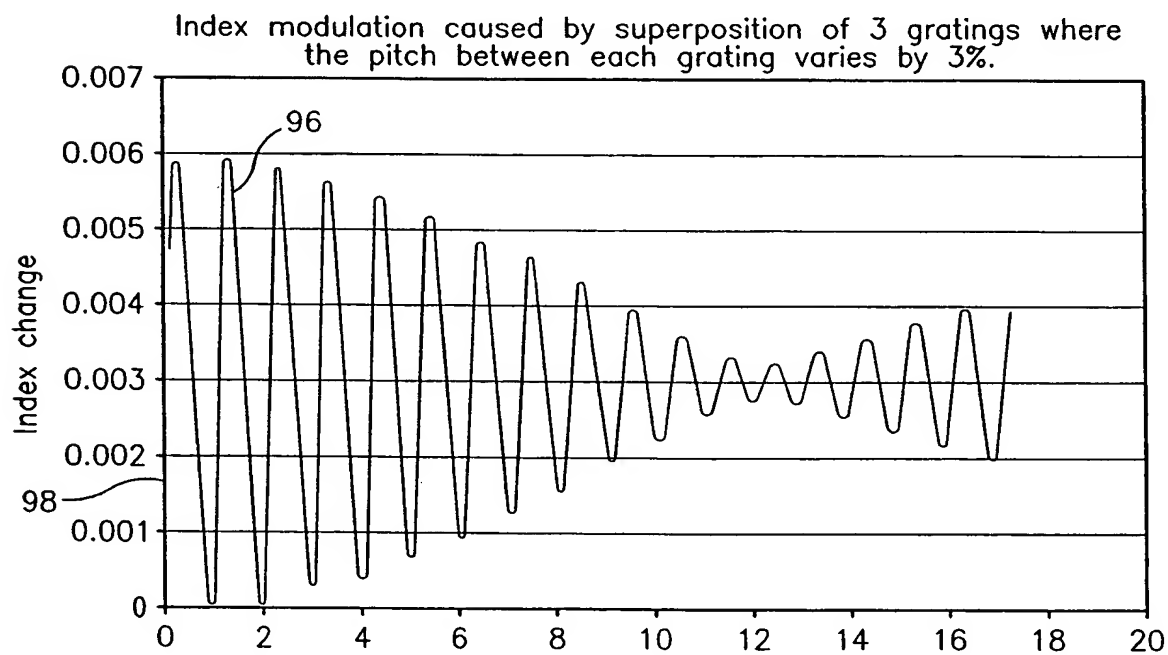


Illustration (d)

FIG. 27

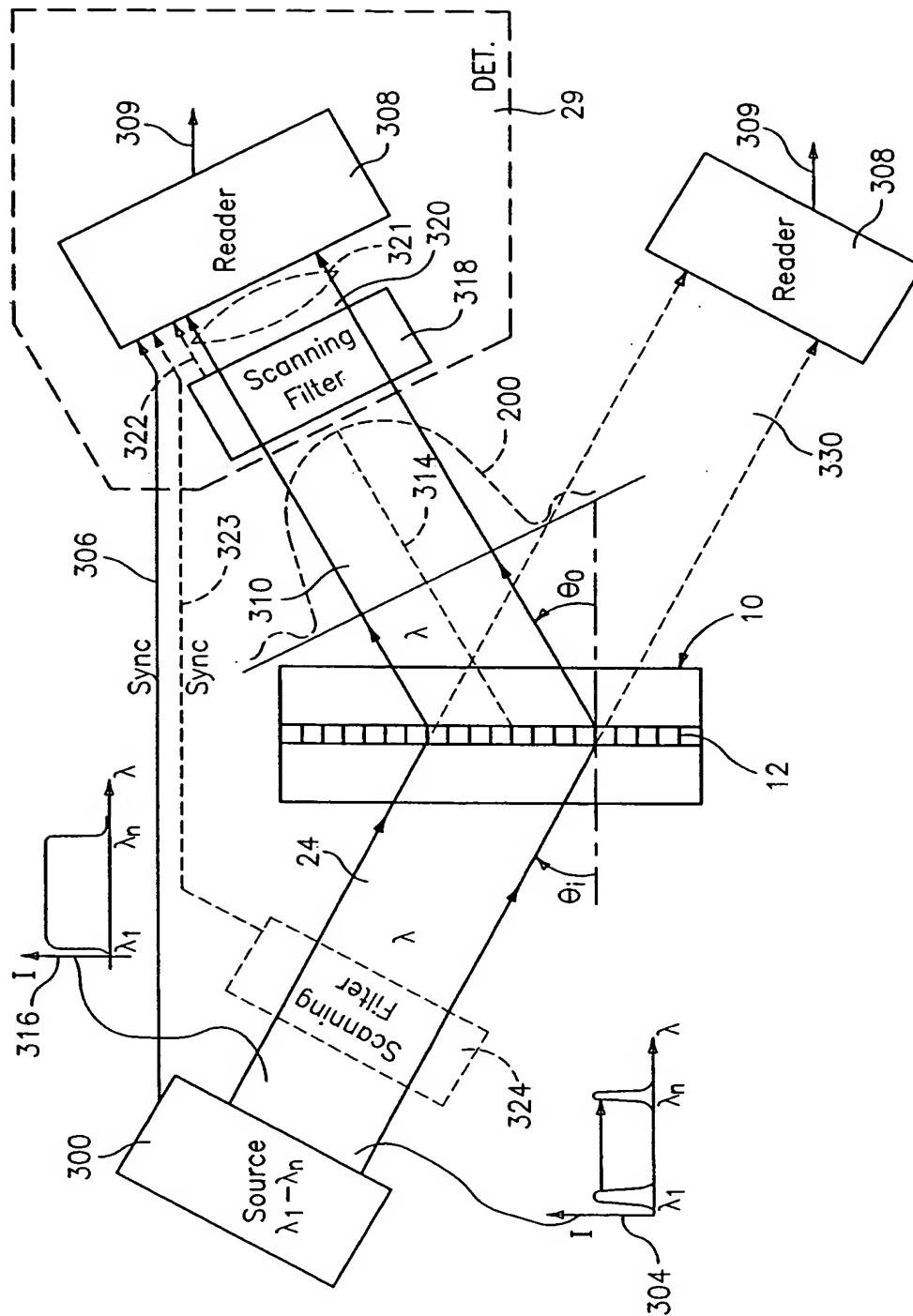
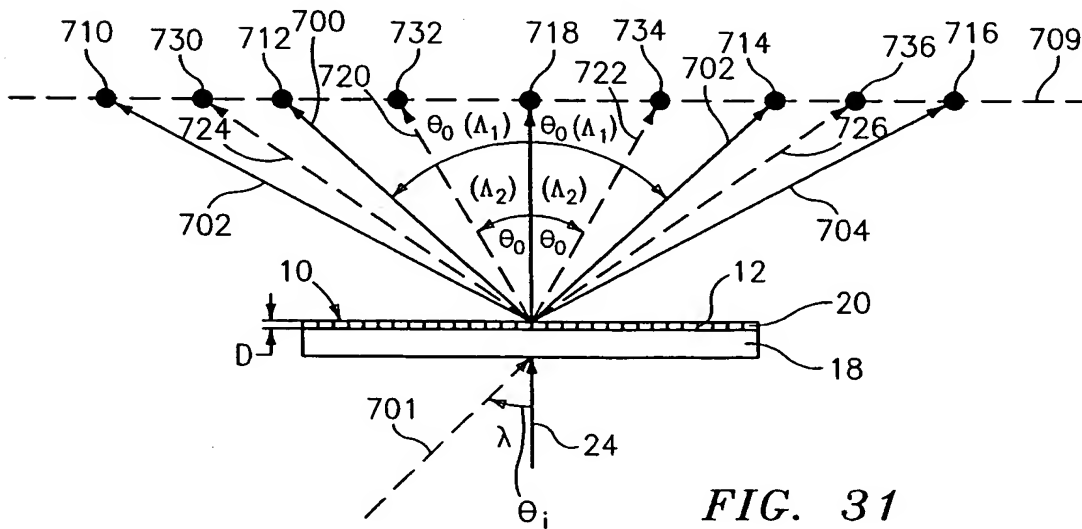
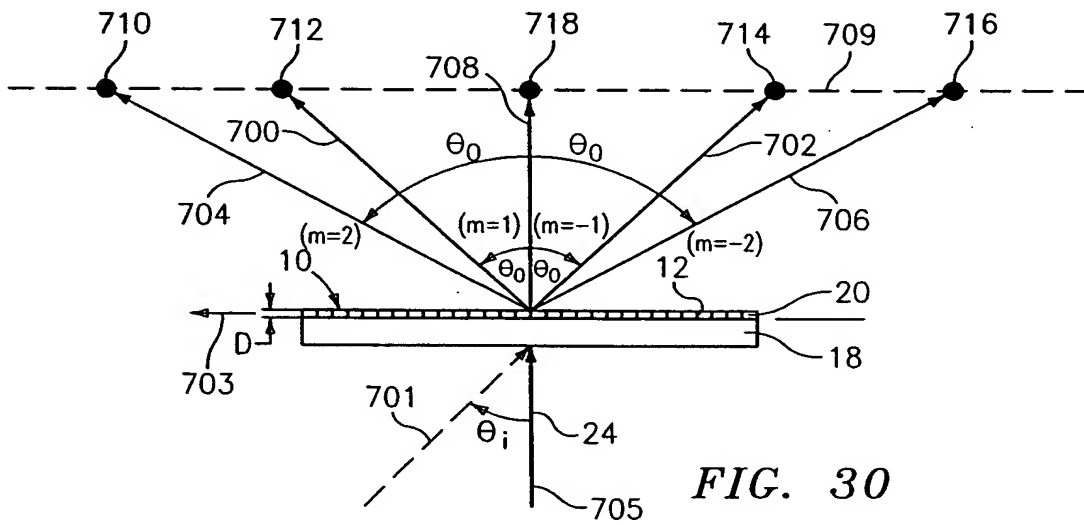
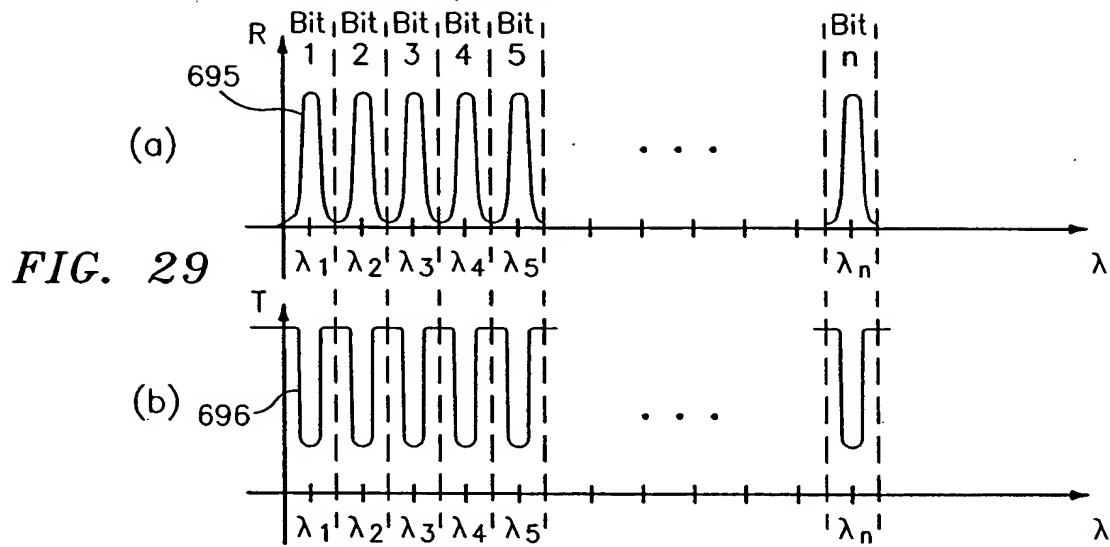


FIG. 28



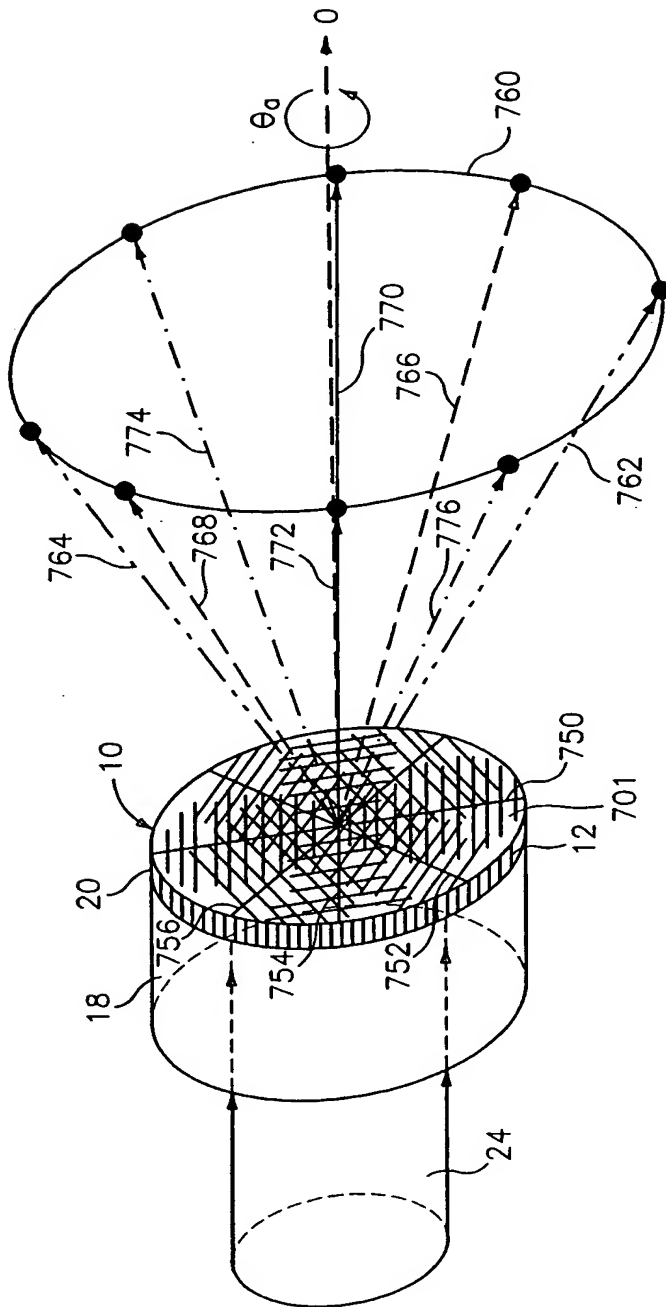


FIG. 32

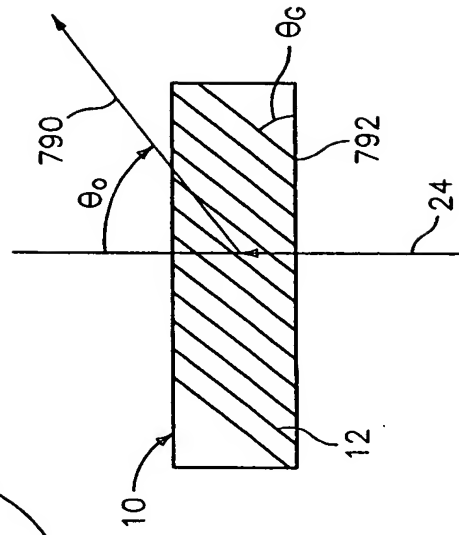


FIG. 33

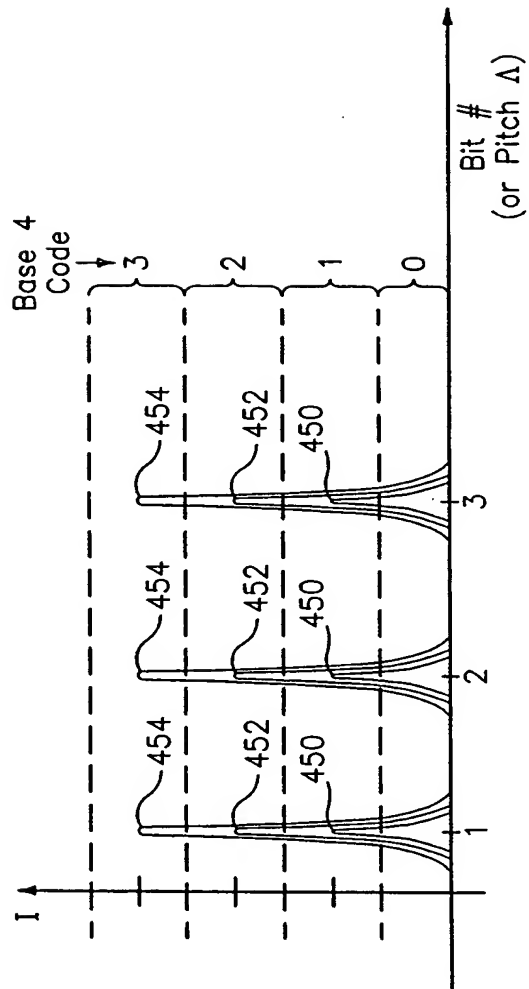


FIG. 34

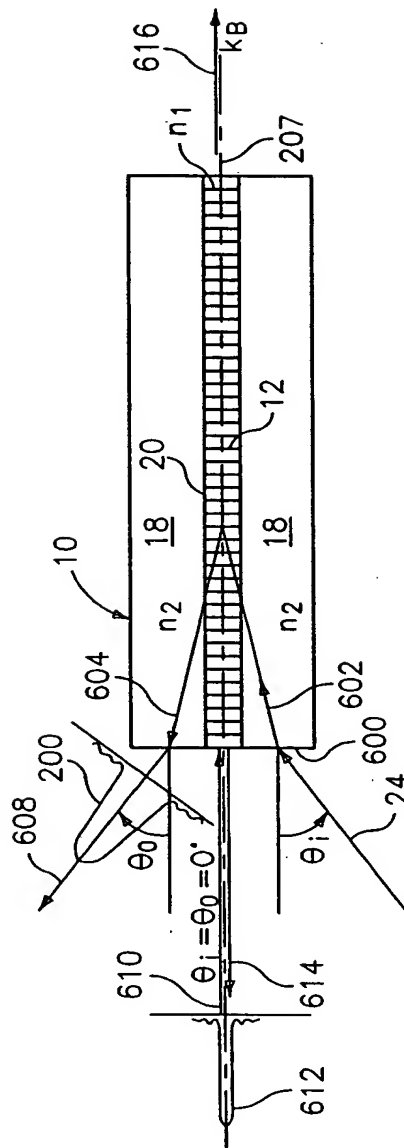


FIG. 35

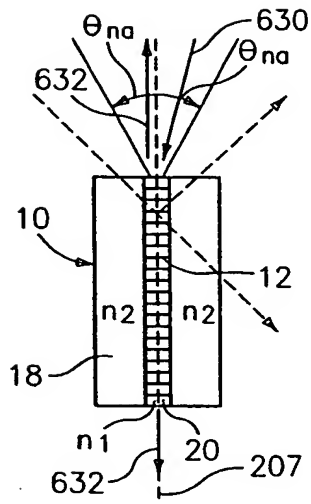


FIG. 36

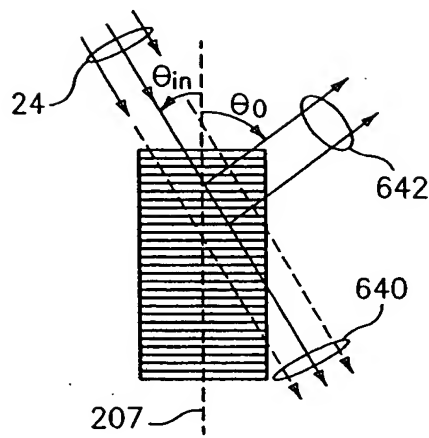
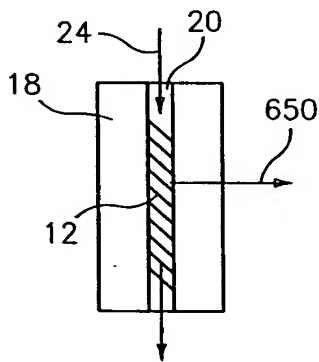
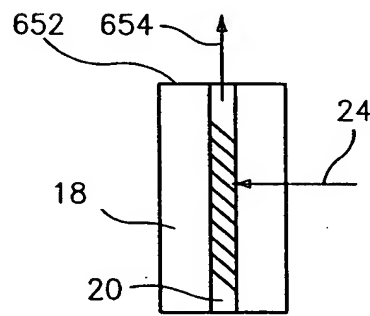


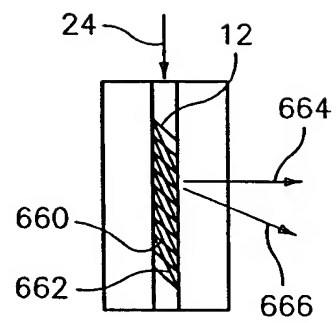
FIG. 37



Illustration(a)



Illustration(b)



Illustration(c)

FIG. 38

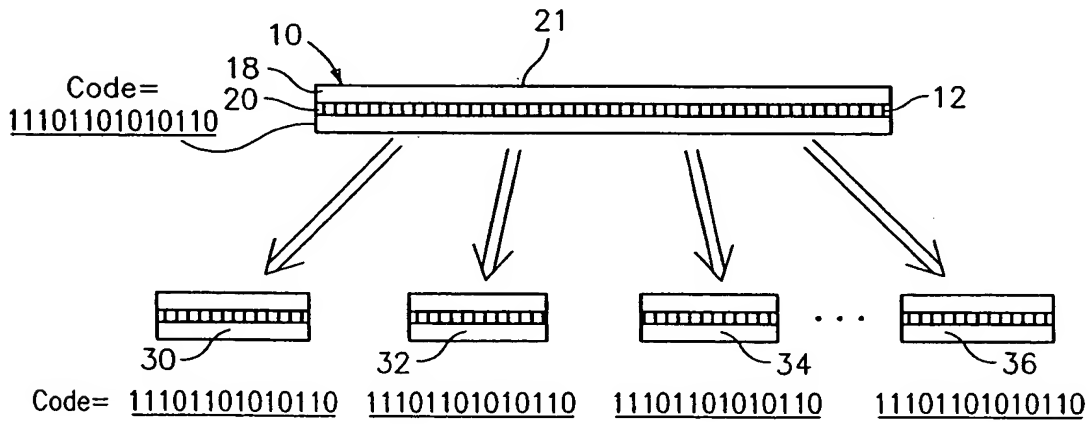
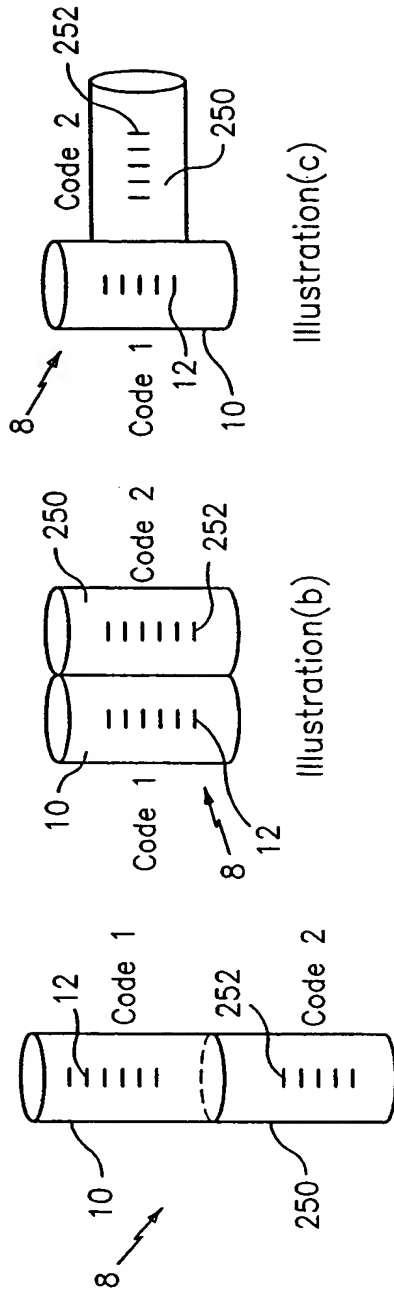


FIG. 40



Illustration(c)

Illustration(b)

Illustration(a)

FIG. 42

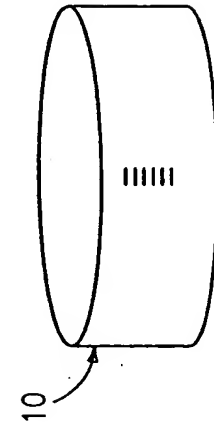


FIG. 44

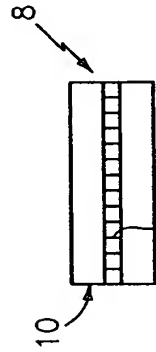


FIG. 39

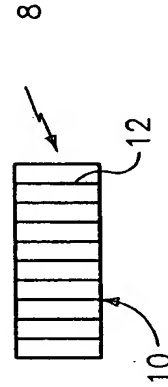
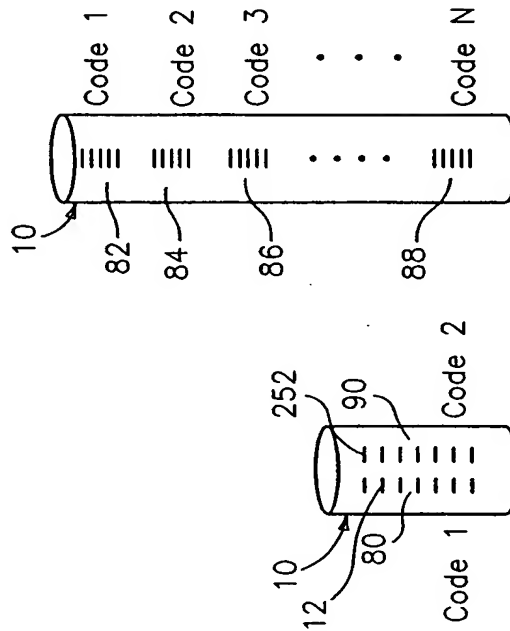


FIG. 41



Illustration(b)

Illustration(a)

FIG. 43

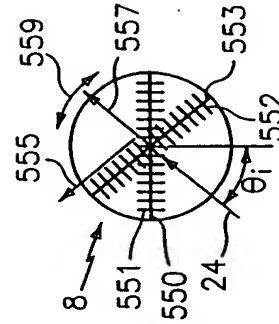
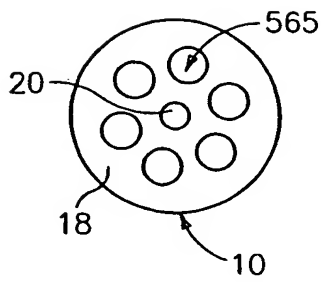
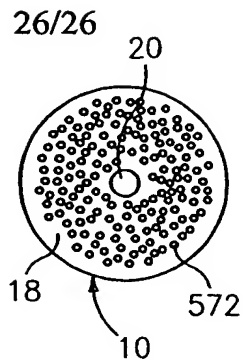


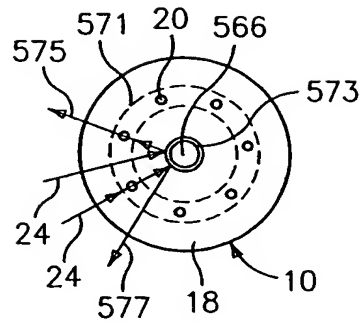
FIG. 45



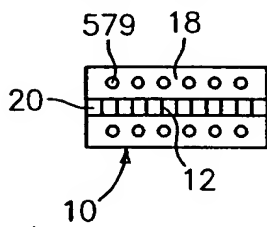
Illustration(a)



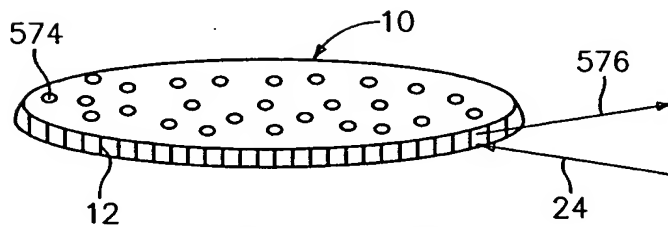
Illustration(b)



Illustration(c)

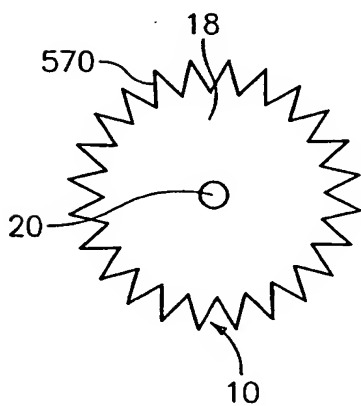


Illustration(d)

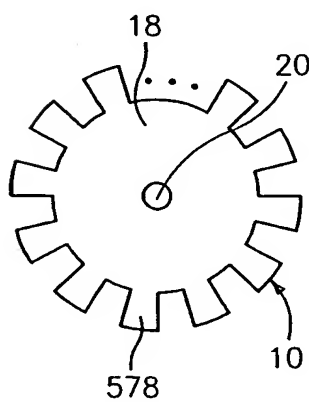


Illustration(e)

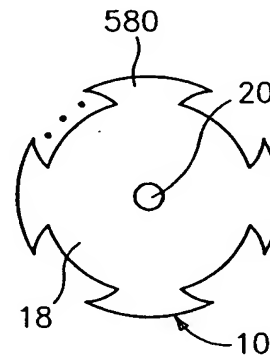
FIG. 46



Illustration(a)

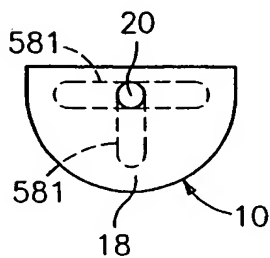


Illustration(b)

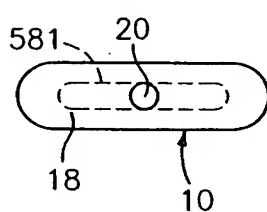


Illustration(c)

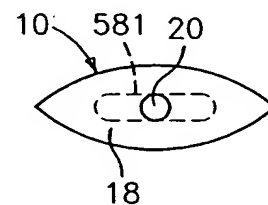
FIG. 47



Illustration(a)



Illustration(b)



Illustration(c)

FIG. 48